

**CLAIMS**

1       1. A method comprising:

2               performing Voice over Internet Protocol (VoIP) routing in  
3       a network including forcing packets carrying media in a VoIP  
4       call through managed network elements of a specific Internet  
5       Protocol (IP) address with a call signaling and selected media  
6       proxy.

1       2. The method of claim 1 wherein the packets originate  
2       in an originating VoIP network endpoint.

1       3. The method of claim 1 wherein the packets comply  
2       with RTP.

1       4. The method of claim 1 wherein forcing comprises  
2       receiving call signaling information from an originating VoIP  
3       network endpoint.

1       5. The method of claim 4 wherein forcing further  
2       comprises relaying the call signaling information through the  
3       call signaling proxy to a destination VoIP network element.

1       6. The method of claim 5 wherein forcing further  
2       comprises directing the originating VoIP network endpoint to  
3       use the selected media proxy.

1       7. The method of claim 6 wherein forcing further  
2       comprises streaming the packets to a media proxy in a selected  
3       media proxy server.

1       8. The method of claim 7 wherein forcing further  
2 comprises replacing an Internet Protocol address of the  
3 selected media proxy and the call signaling proxy with an  
4 address of a next hop in the network.

1       9. The method of claim 4 wherein replacing comprises  
2 using Network Address Translation (NAT).

1       10. The method of claim 4 wherein the next hop comprises  
2 a terminating VoIP network endpoint.

1       11. The method of claim 1 wherein the selected media  
2 proxy includes a list of static virtual Internet Protocol  
3 addresses that represent media network endpoints, gateways and  
4 other media proxies.

1       12. The method of claim 1 wherein the selected media  
2 proxy includes a list of dynamic virtual IP addresses that  
3 represent media network endpoints, gateways and other media  
4 proxies.

1       13. The method of claim 9 wherein Network Address  
2 Translation (NAT) hides the terminating VoIP network endpoint  
3 from a call originator.

1       14. The method of claim 9 wherein Network Address  
2 Translation (NAT) hides an originating VoIP network endpoint  
3 address from a terminating VoIP network endpoint address.

1       15. The method of claim 4 wherein relaying comprises  
2       selecting call signaling and media proxy servers that provide  
3       a predetermined quality of service.

1       16. The method of claim 1 wherein selecting comprises  
2       testing a quality of a network connection from the originating  
3       VoIP network endpoint point of presence (POP) to each of the  
4       call signaling and media proxy servers.

1       17. The method of claim 16 wherein testing comprises  
2       using a series of pings to determine a closest call signaling  
3       and media proxy server.

1       18. The method of claim 16 wherein testing comprises  
2       using trace routes to determine a closest call signaling and  
3       media proxy server.

1       19. A method comprising:  
2               receiving call signaling information from an  
3       originating Voice over Internet Protocol (VoIP) endpoint;  
4               relaying the call signaling information to a  
5       destination VoIP endpoint;  
6               directing the originating VoIP endpoint to use a RTP  
7       media proxy; and  
8               receiving a stream of media to the RTP media proxy  
9       from the originating VoIP endpoint.

1           20. The method of claim 19 wherein directing comprises:  
2                   determining an address of the destination VoIP  
3                   endpoint; and  
4                   obtaining virtual addresses from the RTP media  
5                   proxy.

1           21. The method of claim 20 wherein the virtual addresses  
2           represent media endpoints, gateways, PC clients, application  
3           servers and other media proxies.

1           22. A method for controlling RTP routing comprising:  
2                   sending call signaling information from an  
3                   originating VoIP endpoint to a call signaling proxy;  
4                   relaying the call signaling information from the  
5                   call signaling proxy to a destination VoIP endpoint; and  
6                   sending a stream of media from the originating VoIP  
7                   endpoint to a RTP media proxy.

1           23. The method of claim 22 wherein the RTP media proxy  
2           comprises virtual IP addresses of media endpoints, media  
3           gateways and other RTP media proxies.

1           24. The method of claim 22 wherein the RTP media proxy  
2           comprises dynamic IP addresses of media endpoints, media  
3           gateways and other RTP media proxies.

1        25. The method of claim 22 wherein the RTP media proxy  
2        comprises static IP addresses of media endpoints, media  
3        gateways and other RTP media proxies.

1        26. The method of claim 22 further comprising replacing  
2        an IP address of the call signaling proxy and the RTP media  
3        proxy with an IP address of a next hop endpoint.

1        27. The method of claim 24 wherein replacing comprises  
2        network address translation (NAT).

1        28. A computer program stored on a computer-readable  
2        mechanism, the computer program comprising instructions that  
3        cause a computer to:

4                force packets carrying media in a VoIP call through  
5        managed network elements of a specific Internet Protocol (IP)  
6        address with a call signaling and selected RTP media proxy.

1        29. A computer program stored on a computer-readable  
2        medium, the computer program comprising instructions that  
3        cause a computer to:

4                receive call signaling information from an  
5        originating Voice over Internet Protocol (VoIP) endpoint;

6                relay the call signaling information to a  
7        destination VoIP endpoint;

8                   direct the originating VoIP endpoint to use a RTP  
9   media proxy; and  
  
10                  receive a stream of media to the RTP media proxy  
11   from the originating VoIP endpoint.